

changes, but they contained bloodvessels and showed precisely the same coverings as a uterine ovum at the same stage of development. The sections prove: (1) That the ovum can be embedded in the ovarian stroma outside the Graafian follicle. (2) That it embeds itself just as does the ovum in the uterus in connective tissue rich in bloodvessels. (3) As has already been shown by C. V. Tussenbroeck and others, the uterine epithelium is not necessary for plasmodial formation; as this ovum lies in the ovarian stroma neither can the plasodium be derived from the follicular epithelium. The two cases combined once again demonstrate the nature of implantation. The process involved is essentially a destructive one; the primary necessity for the ovum is a nidus of connective tissue rich in bloodvessels. Formation of decidua is not essential; it is a defensive reaction against the destructive activities of the trophoblast, which it limits and controls.

**Pressure Conditions within the Abdomen.**—SMITH (*Amer. Jour. Obst.*, 1908, lviii, 242), who has conducted experiments to increase our knowledge of pressure conditions within the abdomen, concludes: (1) Atmosphere pressure within and without the abdomen is almost exactly balanced, any variations at any point being caused by factors to be enumerated: There is no special universal positive pressure which has so frequently been assumed. Physiological increase or decrease of volume is attended by insignificant or no changes in pressure—the balance is practically maintained. A marked increase of volume from pathological conditions often takes place without disturbing the balance; this varies in different subjects. (2) Hydrostatic pressure at any point within the abdomen varies with the position of the body and the depth of the superimposed organs. (3) Negative pressure at uppermost points is possible under certain conditions where the walls of such uppermost points are rigid. In the upper abdomen in the upright position a negative pressure may exist, which has more or less to do with the support of the viscera. (4) Respiration causes small waves of pressure. (5) Coughing, sneezing, defecation, labor, and many movements of the body cause a very marked increase of intra-abdominal pressure by contraction of the muscles of the abdominal walls. Such pressure is transmitted in all directions and without diminution to every part of the contents and interior of the abdomen.

## OTOLOGY.

UNDER THE CHARGE OF

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**The Relation of Chronic Progressive Labyrinthine Deafness to Ménière's Disease.**—ALEXANDER and MANASSE (*Ztschr. f. Ohrenheilk.*, 1908, lv, p. 183). Under the heading, Ménière's disease, are commonly

included certain labyrinthine symptoms, when they occur suddenly and are of an apoplectiform character, and these are found, according to the observations of Alexander and Manasse, in the greater majority in cases in which there has been a disease of the ear of long standing evidencing itself in chronic progressive labyrinthine deafness. In this paper Alexander and Manasse cite eleven cases of patients who for several years had exhibited, on one or both sides, evidences of this chronic impairment of hearing of an advanced type, and who suddenly became the subjects of the typical Menière's complex of symptoms, increased tinnitus, dizziness, nausea, vomiting, and increased impairment of hearing, the attacks with this sequence of symptoms being subsequently repeated. In some of the cases there were marked changes in the middle ear, considerable retraction of the drumhead, and calcareous deposits, but in all cases the symptoms, as determined especially by the hearing tests, pointed to the labyrinth as having been implicated in the progressive impairment of hearing. The labyrinthine changes in these cases, as observed by Alexander, Bruehl, and Manasse, included atrophic degenerative changes in the nervous elements and new connective-tissue formations. In addition to these commonly observed changes Manasse found, in two cases, multiple hemorrhages in the course of the auditory nerve and in the labyrinth, and in one case numerous hemorrhages in the ligamentum spirale, a lesser number in the modiolus, an extensive number in the macula sacculi, and congeries of hemorrhages in the nerve itself. The Menière sequence of symptoms in this case was undoubtedly the result of these numerous hemorrhages; more exact evidence was furnished by a second case of chronic progressive labyrinthine deafness, which had been under clinical observation and which came to autopsy but a few days after an attack characterized by Menière's complex.

From these observations Alexander and Manasse draw the following conclusions: (1) That in cases of nervous deafness attacks demonstrating Menière's complex of symptoms are comparatively common; (2) that in cases of degenerative labyrinth atrophy multiple hemorrhages in the labyrinth and in the auditory nerve are to be expected; and (3) that the access of these attacks is referable to the hemorrhages in question.

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## HYGIENE AND PUBLIC HEALTH

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**Endotoxins.**—At the July, 1908, meeting of the German Society of Microbiology (*Centralblt. f. Bak.*, October 27, 1908) the so-called endotoxins and their relation to the true toxins were discussed, and the discussion developed considerable difference of opinion. Pfeiffer led the discussion and quite properly claimed that his research on the cholera poison was the first work that quite clearly indicates that the bacterial